

**Listing of Claims:**

Claims 1-32 (canceled)

Claim 33 (previously amended): A synthetic antigen presenting matrix for activating CD4<sup>+</sup> T cells comprising:

- a) a support;
- b) an extracellular portion of a recombinant MHC class II heterodimer operably linked to the support and capable of loading a selected peptide; and
- c) an extracellular portion of at least one recombinant accessory molecule operably linked to the support such that the extracellular portions of the MHC class II heterodimer and accessory molecule are present on the matrix in sufficient numbers for activating CD4<sup>+</sup> T cells when a peptide is loaded onto the extracellular portion of the heterodimer.

Claim 34 (original): The matrix of claim 33 wherein the support is a cell fragment.

Claim 35 (original): The matrix of claim 33 wherein the support is a cell.

Claim 36 (original): The matrix of claim 35 wherein the extracellular portion of the MHC molecule is linked to the cell by a transmembrane domain of the MHC class II heterodimer.

Claim 37 (original): The matrix of claim 33 wherein the support is a liposome.

Claim 38 (original): The matrix of claim 33 wherein the support

is a solid surface.

Claim 39 (original): The matrix of claim 33 wherein the extracellular portion of the MHC class II heterodimer is linked to an epitope which reacts with an antibody to link the portion to the support.

Claim 40 (original): The matrix of claim 33 wherein the extracellular portion of the Class II MHC heterodimer is linked to (His)<sub>6</sub> which reacts with nickel to link the portion to the support.

Claim 41 (original): The matrix of claim 33 wherein the support is a porous material.

Claim 42 (original): The matrix of claim 33 wherein the peptide is loaded onto the extracellular portion of the MHC class II heterodimer.

Claim 43 (original): The matrix of claim 33 wherein the extracellular portion of the MHC class II heterodimer is empty.

Claim 44 (original): The matrix of claim 33 wherein the accessory molecule is a costimulatory molecule.

Claim 45 (original): The matrix of claim 44 wherein the costimulatory molecule is B7.1 or B7.2.

Claim 46 (original): The matrix of claim 33 wherein the accessory molecule is an adhesion molecule.

Claim 47 (original): The matrix of claim 46 wherein the adhesion molecule is ICAM-1, ICAM-2, ICAM-3 or LFA-3.

Claim 48 (original): The matrix of claim 33 wherein the accessory molecule is a survival molecule.

Claim 49 (original): The matrix of claim 48 wherein the survival molecule is Fas ligand or CD70.

Claim 50 (original): The matrix of claim 33 having a first accessory molecule and a second accessory molecule.

Claim 51 (original): The matrix of claim 50 wherein the first accessory molecule is a costimulatory molecule and the second accessory molecule is an adhesion molecule.

Claim 52 (original): The matrix of claim 51 wherein the costimulatory molecule is B7.1 or B7.2 and the adhesion molecule is ICAM-1.

Claim 53 (original): The matrix of claim 50 wherein the first accessory molecule is a costimulatory molecule and the second accessory molecule is a survival molecule.

Claim 54 (original): The matrix of claim 50 wherein the first accessory molecule is a survival molecule and the second accessory molecule is an adhesion molecule.

Claim 55 (original): The matrix of claim 54 wherein the survival molecule is CD70 and the adhesion molecule is ICAM-1.

Claim 56 (original): The matrix of claim 50 wherein the first and second accessory molecules are costimulatory molecules.

Claim 57 (original): The matrix of claim 56 wherein the costimulatory molecules are B7.1 and B7.2.

Claim 58 (original): The matrix of claim 50 further comprising a third accessory molecule.

Claim 59 (original): The matrix of claim 58 wherein the first accessory molecule is a costimulatory molecule, the second accessory molecule is an adhesion molecule, and the third accessory molecule is a survival molecule.

Claim 60 (original): The matrix of claim 59 wherein the costimulatory molecule is B7.2, the adhesion molecule is ICAM-1 and the survival molecule is CD70.

Claims 61-140 (canceled)